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ABSTRACT

The Intellectual Achievement Responsibility Questionnaire, which measures perceived locus of control of academic outcomes, was administered to 28 emotionally handicapped (EH) and 25 learning disabled (LD)/EH children. Between group comparison revealed that EH children took significantly more personal responsibility for academic failure than did LD/EH children ($p<.025$), although the two groups did not differ significantly in taking responsibility for academic success. Within group comparison revealed that LD/EH children attributed success to effort and failure to a lack of effort; EH children, however, attributed success to ability but failure to both a lack of and a lack of effort. Among EH children, significant positive correlations were found between report card grades and perceived internality for success. Among LD/EH children, significant negative correlaions were found between report card grades and perceived lack of effort as the cause of failure. Attribution training is discussed in light of these findings, and suggestions are given for further research on task persistence. (Author)

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Learned Helplessness: Perceived Effects of Ability and Effort on Academic Performance among EH and LD/EH Children

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Abstract

The Intellectual Achievement Responsibility Questionnaire, which measures perceived locus of control of academic outcomes, was administered to 28 EH and 25 LD/EH children. Between group comparison revealed that EH children took significantly more personal responsibility for academic failure than did LD/EH children ($p < .025$), although the two groups did not differ significantly in taking responsibility for academic success. Within group comparison revealed that LD/EH children attributed success to effort and failure to a lack of effort; EH children, however, attributed success to ability but failure to both a lack of ability and a lack of effort. Among EH children, significant positive correlations were found between report card grades and perceived internality for success. Among LD/EH children, significant negative correlations were found between report card grades and perceived lack of effort as the cause of failure. Attribution training is discussed in light of these findings, and suggestions are given for further research on task persistence.

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Learned Helplessness: Perceived Effects of Ability and Effort on Academic Performance among EH and LD/EH Children

(May 19, 1984)

The term, "learned helplessness," first introduced by Seligman and Maier in 1967, has become a label applied by different researchers to syndromes of behavior that seem to overlap only partially in terms of behavioral characteristics. Most researchers seem to agree that the salient characteristic of learned helplessness is a lack of persistence at tasks which realistically could be mastered. There is also agreement that children who exhibit learned helplessness have acquired this habit of not trying as a consequence of having repeatedly experienced failure. Some children who have a history of failure seem to develop the attitude that it is a waste of time to try, because they will not succeed anyway.

Despite agreement concerning its origin and nature, there are varying interpretations of the personality characteristics of children afflicted by learned helplessness. For example, according to Kirk and Chalfant (1984), learned helplessness is characterized, among other things, by "the belief that failures are caused by personal deficiencies and successes are due to external events beyond the child's control" (p. 259). On the other hand, Dweck (1975) suggests that learned helplessness is characterized by the belief that both failures and successes are caused by external factors (Dweck & Reppucci, 1973). The difference in the characterizations of learned helplessness may stem from the fact that Kirk and Chalfant base their interpretation on findings from studies comparing learning disabled (LD) and nonlearning disabled (NLD) children,

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whereas Dweck's interpretation is based on studies comparing unlabled children who had been identified as persisters or nonpersisters.

It is important for educators to identify and help children who habitually demonstrate a lack of persistence when confronted with academic tasks. In order to develop appropriate remedial intervention strategies, however, it is necessary to explicate the nature of the characteristics associated with learned helplessness and to determine to what extent these characteristics may differ among various groups of children.

Although not all children who lack academic persistence necessarily fall into one of the handicapping categories conventionally used by special educators, there are nevertheless some groups of handicapped children, such as those with emotional handicaps or learning disabilities, whose behavior is typically characterized by the lack of persistence at academic tasks (see, for example, Andrews & Debus, 1978).

Generally, studies examining children's perceptions of the causes of academic success and failure have focused on perceived locus of control by determining whether children attribute academic outcomes to internal factors, such as ability or effort, or to external factors, such as luck or task difficulty. It seems clear that the way one would help a youngster overcome the problem of lack of persistence would depend in part on what the youngster attributed his or her academic performance to.

Although studies of locus of control with respect to academic tasks have used various measures of attributions (see, for example, Butkowsky & Willows, 1980; Pearl, 1982), the Intellectual Achievement Responsibility (IAR) Questionnaire (Crandall, Katkovsky & Crandall, 1965) has been the

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most widely used instrument (Stipek & Weiss, 1981). In a review of locus of control instruments, MacDonald (1973) has noted that the IAR "is a carefully developed scale that shows acceptable reliability and evidence of both divergent and convergent validity" (p. 195).

In order to eliminate possible confounding effects of different measuring instruments, the studies of learned helplessness that are reviewed below are confined to those in which the IAR was used. The IAR consists of 34 items, half of which depict success and half of which depict failure achievement situations. For each item the subject is forced to attribute the outcome to either an internal or an external cause. Furthermore, the internal attributions for each item can be broken down into those that reflect effort and those that reflect ability (Dweck, 1975; Schultz & Pomerantz, 1976).

Studies comparing children who persist at academic tasks with children who lack persistence have shown that persisters took significantly more personal responsibility for both success and failure outcomes than did nonpersisters (Dweck, 1975; Dweck & Reppucci, 1973). Persisters believed that success was due to effort, and correspondingly, that failure was due to a lack of effort. Nonpersisters, however, believed that success was due to ability and that failure was due to a lack of ability (Diener & Dweck, 1978; Deweck & Reppucci, 1973). It should be noted that none of the children in the studies described above was labeled with any handicapping condition.

Studies comparing NLD children with children labeled as LD have found that LD children took less personal responsibility for overall

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academic outcomes (Aponik & Dembo, 1983; Hallahan, Gajar, Cohen & Tarver, 1978) and for success outcomes (Aponik & Dembo, 1983; Chapman & Boersma, 1979; Pearl, Bryan & Donahue, 1980) than did NLD children. However, results concerning failure outcomes have not been consistent. In two studies using elementary school children (Chapman & Boersma, 1979; Pearl, Bryan & Donahue 1980), no difference was found between LD and NLD children's acceptance of personal responsibility for failure outcomes. On the other hand, Aponik and Dembo (1983) found that among adolescents, NLD children took more personal responsibility for failure outcomes than did LD children. The discrepancy between the two findings may be accounted for by the different age groups studied. Chapman and Boersma found that internality scores for failure outcomes were higher for older than for younger children, regardless of whether the children were LD or NLD, but it should be noted that oldest children were only in the sixth grade. It may be that when children reach adolescence, NLD children continue to increase their internality for failure outcomes but LD children do not.

Findings based on studies of nonlabeled elementary school children differ from those based on studies of labeled elementary school children. Among nonlabeled children, persisters took significantly more personal responsibility than nonpersisters for failure outcomes, but among labeled children, there was no significant difference between LD and NLD children's acceptance of personal responsibility for failure outcomes. These findings suggest that not all groups of children who exhibit learned helplessness attribute academic failure to internal factors.

The current study had three major purposes: (1) to compare the

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internality scores of emotionally handicapped (EH) and LD/EH elementary school children, (2) to compare ability and effort attributions within each handicapped group, and (3) to examine the relationship between internality scores and academic performance. To accomplish each purpose, various hypotheses were tested.

The first purpose was to compare the two groups of children. Given the fact that both groups were labeled and that the LD/EH had a dual handicapping condition, the following hypotheses were formulated.

Internality Scores:

Hypothesis 1. EH children would attribute academic success significantly more to internal factors than would LD/EH children.

Hypothesis 2. There would be no significant difference between EH and LD/EH children's attributions of academic failure to internal factors.

The second purpose of the study, which was to compare effort and ability attributions within each handicapped group, led to the hypotheses outlined in Table 1 were formulated.

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Insert Table 1 about here

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Hypothesis 3. EH children would attribute academic success significantly more to ability than to effort.

Hypothesis 4. EH children would attribute academic failure significantly more to a lack of effort than to a lack of ability.

Hypothesis 5. LD/EH children would attribute academic success significantly more to effort than to ability.

Hypothesis 6. LD/EH children would attribute academic failure significantly more to a lack of ability than to a lack of effort.

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The third purpose of the study was to examine the relationship between IAR scores and actual academic performance. Stipek and Weiz's (1981) comprehensive review of studies of the relationship between locus of control and academic performance among nonhandicapped children shows, with minor exceptions, that all IAR scores and measures of academic performance are significantly and positively correlated. Consequently, it was hypothesized that for both LD/EH and EH students, report card grades in reading, language arts, and mathematics would be significantly positively correlated with all IAR scores.

Method

Subjects

All of the students attending a private day school for EH children participated in the study. All had been certified by a Committee on the Handicapped in their local school district. There were 28 EH and 25 LD/EH subjects of whom 25 EH and 24 LD/EH were males. The EH and LD/EH groups were comprised respectively of 18 and 14 whites, eight and eight blacks, and two and three Hispanics. The mean ages of EH and LD/EH children were respectively 13 years and 4 months (*SD* = 1-6) and 12 years and 3 months (*SD* = 2-4). All were children who, according to public school officials, could not be accommodated in the public school system. EH subjects' IQ scores had a mean of 98.07 and a standard deviation of 15.42; LD/EH subjects' IQ scores had a mean of 92.84 and a standard deviation of 15.62.

Procedure

The IAR was administered to subjects individually and was read aloud to students who may have had reading difficulties. Report card grades

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for the previous three-month period in reading, language arts, and mathematics were used.

Results

Reliability of the IAR

Split-half reliability coefficients were calculated and corrected for test length separately for success and failure outcome items and were found to be respectively, .64 and .70 for EH subjects; .55 and .52 for LD/EH subjects; and .59 and .65 for both groups of subjects combined. These reliability coefficients are consistent with the reliability coefficients reported by Crandall, Katkovsky, and Crandall (1965).

Between Group Comparisons

Internality scores. A 2 × 2 analysis of variance with repeated measures was carried out, using the kind of handicapping conditions as the between subjects variable and internal attributions for success and failure as the within subjects variable. See Table 2 for means and standard deviations of internal attributions for success and failure outcomes.

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Insert Table 2 about here
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Results indicated that there was a significant interaction between kind of handicapping condition and kind of attribution, $F(1, 51) = 5.64$, $p < .025$. Analyses of variance for simple effects were carried out to determine the nature of the significant interaction. It was found that there was no significant difference between EH and LD/EH subjects' attributions of academic success to internal factors, thus failing to confirm hypothesis 1, which predicted that EH children would attribute

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success significantly more to internal factors than would LD/EH children. It was also found that EH subjects attributed academic failure significantly more to internal factors than did LD/EH children, $F(1, 51) = 6.06$, $p < .025$, thus failing to confirm hypothesis 2, which predicted that there would be no significant difference between the two groups' attributions of failure to internal factors.

In other words, the two groups did not differ significantly in terms of taking personal responsibility for success outcomes, but EH children took significantly more personal responsibility for failure outcomes than did LD/EH children.

Within Group Comparisons

Of the 17 items depicting success outcomes, 8 reflected ability and 9 reflected effort; of the 17 items depicting failure outcomes, 7 reflected ability and 10 reflected effort (Dweck & Reppucci, 1973). Ability and effort attributions were converted into percentages because they were based on unequal numbers of items. Mean percentages and standard deviations of success and failure outcomes attributed to ability and effort by the two groups of subjects are shown in Table 3.

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Insert Table 3 about here

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Success and failure attributions were analyzed separately by 2 X 2 analyses of variance with repeated measures, using kind of handicapping conditions as the between subjects variable and ability and effort scores as the within subjects variable. Within group means were compared by the use of the Newman-Euls Multiple Range Test.

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Ability and effort attributions among EH children. EH children attributed success significantly more to ability than to effort, thus confirming hypothesis 3. There was no significant difference, however, in their attributions of failure to ability of effort, thus failing to confirm hypothesis 4.

Ability and effort attributions among LD/EH children. LD/EH children attributed success significantly more to effort than to ability, thus confirming hypothesis 5. They also attributed failure significantly more to a lack of effort than to a lack of ability, which is exactly opposite from the prediction in hypothesis 6.

Combining the results of the analyses, it appears that LD/EH children attribute success to effort and failure to a lack of effort, whereas EH children attributed success to ability and failure equally to a lack of effort or a lack of ability.

Locus of Control and Academic Performance

Letter grades assigned by teachers to students' performance in reading, language arts, and mathematics were converted to a numerical scale, where A = 10, A- = 9, B+ = 8, etc. Coorelations between grades in the three academic areas ranged from .85 to .92 for EH children and from .69 to .85 for LD/EH children. There was no significant difference between the mean grades of the two groups of students for any academic area or for the combined areas.

Significant correlation coefficients computed between IAR scores and report card grades in the three academic areas for EH and LD/EH children are shown in Table 4. Only the scores of children who had been in attendance at the school for at least 80% of the academic year (i.e.,

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at least 144 days) were analyzed. The attendance criterion was met by 23 EH and 22 LD/EH children.

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Insert Table 4 about here

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An inspection of the data in Table 4 reveals that internal attributions for success, with one exception (language arts), were significantly positively correlated with grades for EH children. It appears, therefore, that among EH children, report card grades were positively related to the extent to which these children assumed personal responsibility for academic success, and particularly to perceptions of their ability.

Among LD/EH children, an entirely different pattern of results emerged. Two of the three correlation coefficients between grades and attributions of failure to a lack of effort were statistically significant, and the third ($r = -.32$ for reading) just barely failed to reach significance. It should be noted that the significant correlation coefficients are all negative, which means that to the extent LD/EH children attributed their academic failure to a lack of effort, their academic performance was worse.

The hypothesis that there would be significant positive correlations between report card grades and all IAR scores was partially confirmed for EH children. EH children's report card grades were significantly correlated with scores on success items, but not with scores on failure items. The hypothesis not only failed to be confirmed for LD/EH children, but findings for failure outcomes attributed to a lack of effort were exactly opposite from what was predicted.

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Discussion

Results of the between group comparisons revealed that although EH and LD/EH children were comparable with respect to the extent they took personal responsibility for success, EH children took significantly more personal responsibility for failure than did LD/EH children.

Results of the within group comparisons revealed that EH children attributed success significantly more to ability than to effort but their failure equally to a lack of ability and a lack of effort. LD/EH children, however, attributed success significantly more to effort than to ability; suprisingly, they also attributed failure significantly more to a lack of effort than to a lack of ability.

It seems clear that the two groups of children held different views about the causes of their academic performance. Consequently, it would seem desirable to take these different views into account when trying to help these children overcome learned helplessness.

The major rationale underlying studies of children's locus of control is probably the theoretical position taken by some investigators that actual task performance can be improved by altering children's beliefs about the causes of performance (Rotter, 1966; Weiner, 1972). There is even some empirical support for this position. Dweck (1975) found that nonpersistent children who were taught to attribute their failures to a lack of effort rather than to a lack of ability demonstrated significantly better task performance than nonpersisters who were not given attribution training. Dweck's findings were based on nonlabeled children, and given the lack of consistency in the findings of labeled and nonlabeled children (Chapman & Boersma, 1979; Diener & Dweck, 1978; Dweck & Reppucci, 1973; Pearl, Bryan & Donahue, 1980), it is not clear

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to what extent the effects of attribution training can be generalized to children who have handicapping labels.

Furthermore, the data in the current study were correlational in nature. Therefore, it is not known to what extent children's academic performance is caused by the kinds of factors to which they attribute their performance. It may be that the kinds of factors to which children attribute their academic performance are caused by how children actually perform academically, or that some unidentified factor or factors cause both actual performance as well as performance attribution.

The findings of the current study suggest some rather interesting research questions regarding attribution training procedures to be used with EH and LD/EH children. Given the significant positive correlation between success attribution scores and report card grades among EH children, it would be useful to determine empirically whether an effective intervention strategy for increasing EH children's academic performance would be to teach these children to attribute their successes to internal causes--both to their ability and to their effort.

The significant negative correlations between failure attribution scores and report card grades among LD/EH children seem to indicate that the less willing LD/EH children were to attribute their failure to a lack of effort, the better they performed academically. This interpretation should not be construed as evidence that LD/EH children should be taught not to attribute failure to a lack of effort. It is meant only to highlight the finding that LD/EH children who believe that they would succeed if they only tried harder, are probably engaging in counterproductive thinking.

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"Research from a variety of sources indicates that LD children are well aware of their academic difficulties" (Bryan, Pearl, Donahue, Bryan & Pflaum, 1983, p. 10) and attribute their failure significantly more to a lack of ability than to a lack of effort (Aponik & Dembo, 1983; Butkowsky & Willows, 1980). These findings are based, however, on LD children who were not EH. In contrast, the LD/EH children in the current study attributed their failure significantly more to a lack of effort than to a lack of ability.

In fact, LD children do lack ability to perform some academic tasks. Consequently, LD children's perceptions of their lack of ability in some sense would seem to be veridical. It is of some interest that LD/EH chidlren did not attribute their failure to a lack of ability. One wonders to what extent LD/EH children may either not be aware of or choose to ingore their learning disability. In either case it appears that the emotional handicapping condition is related to a somewhat distorted perception of reality on the part of LD/EH children.

It may be that if LD/EH children do not acknowledge their learning disability, they may be less willing to adopt alternative learning strategies and to apply different strategies when confronted with difficult tasks. To the extent that LD/EH children are willing to persist at tasks, they may persist in using a single strategy that is doomed to failure. A promising area of future research has to do with the nature of task persistence and in what ways different groups of children persist at tasks in different ways. Do LD/EH children lack task persistence, or do they in fact persist at tasks, but in nonproductive ways?

It is important to recognize that task persistence may be defined in

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a variety of ways. For example, one might measure persistence by time on task or by number of attempts at completing the task. These kinds of measures, however, permit only quantitative comparisons among groups of children. More important may be measures that take into account the nature of the behavior children engage in while they are persisting, so that qualitative differences among groups of children might be analyzed.

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Table 1

Hypotheses (3)-(6) Comparing Ability and Effort Scores Within Groups

	Academic Outcome	
Group	Success	Failure
EH	(3) Ability > Effort	(4) Effort > Ability
LD/EH	(5) Effort > Ability	(6) Ability > Effort

Table 2

Means and Standard Deviations

Of IAR Scores for EH and LD/EH Children

	EH (N = 28)		LD/EH (N = 25)	
	M	SD	M	SD
Success	11.89	2.78	11.88	2.8[illegible]
Failure	10.82	2.86	8.80	3.12

Table 3

Means and Standard Deviations of Percentages of Success and Failure Outcomes Attributed to Effort and Ability by EH and LD/EH Children

	EH (N = 28)				LD/EH (N = 25)			
	Effort		Ability		Effort		Ability	
	M	SD	M	SD	M	SD	M	SD
Success	.66	.23	.75	.15	.76	.17	.64	.23
Failure	.66	.22	.60	.19	.57	.24	.45	.22

Table 4

Significant Correlations between IAR Scores
and Report Card Grades in Reading,
Language Arts and Mathematics
for EH and LD/EH Children

	(EH (N = 23)			LD/EH (N = 22)		
	Reading	Lang. Arts	Mathematics	Reading	Lang. Arts	Mathematics
Success						
Total	.54[d]	.44[b]	.52[c]			
Effort	.40[a]		.44[b]			
Ability	.65[d]	.50[c]	.54[d]			
Failure						
Effort					-.39[a]	-.48[b]

[a] $p < .05$
[b] $p < .025$
[c] $p < .01$
[d] $p < .005$

Note: All probabilities are for one-tailed tests.